

## CLAIMS

1. Method for the preparation of a biological fertilizer comprising subjecting whey to a first fermentation step and the addition of a carrier material to the fermented whey.

2. Method according to claim 1, wherein the ratio fermented whey:carrier material is between 10 and 15.

3. Method according to claim 1 or claim 2, further comprising, prior to and/or during the first fermentation of the whey, the inoculation of the whey with a culture of microorganisms.

4. Method according to any of the claims 1-3, wherein the first fermentation is performed at a pH between 5 and 7, preferably at a pH between 4 and 4.5.

5. Method according to any of the claims 1-4, further comprising, prior to the addition of the carrier material, filtration of the fermented whey.

6. Method according to any of the claims 1-5, further comprising, after the addition of the carrier material, a second fermentation of step.

7. Method according to any of the claims 1-6, further comprising the addition of lime.

8. Method according to any of the claims 1-7, wherein the carrier material is a gum resin-poor carrier material.

9. Method according to any of the claims 1-8, wherein the carrier material is a cellulose-rich carrier material.

10. Method according to any of the claims 1-9, wherein the carrier material is selected from the group consisting of saw dust, beech saw dust, oak saw dust, dried nettle, and combinations thereof.

11. Method according to any of the claims 1-10, further comprising the addition of trace elements, nutrients, minerals, growth hormones, stabilizers, organic compounds, and/or antibiotics.

12. Method according to any of the claims 1-11, wherein the biological fertilizer is in a form selected from the group consisting of a powder, granules, a suspension, a dispersion, fibrous matter, a solution, a mixture, and combinations thereof.

13. Biological fertilizer obtainable by a method according to any of the claims 1-12.

14. Fermented whey for the preparation of a biological fertilizer according to claims 13.

15. Composition for biologically fertilizing soil comprising a biological fertilizer according to claim 13.

16. Use of a biological fertilizer according to claim 13 or a composition according to claim 15 for fertilization of a substrate for plant growth.

17. Use according to claim 16, wherein the substrate for plant growth is chosen from the group consisting of soil, vermiculite, glass fibers, rockwool, and aquaculture.

18. Use of a biological fertilizer according to claim 13, or a composition according to claim 15, for improvement of soil composition and/or soil structure.

19. Method for fertilizing soil comprising:  
application of a biological fertilizer according to claim 13,  
or a composition according to claim 15 onto and/or into soil.